Spring 6-8-2020

2020 Bogside June 8: Cranberry Fruitworm

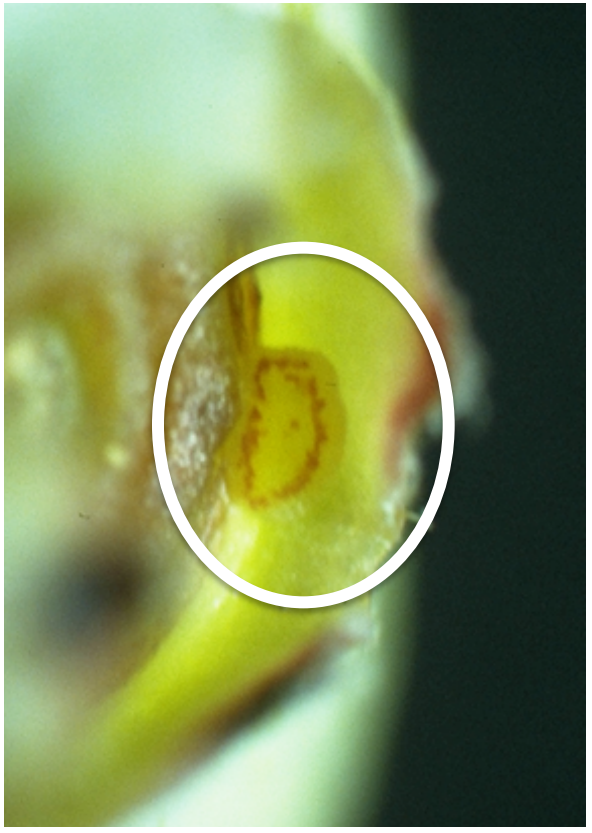
Anne Averill

Cranberry fruitworm

Anne L. Averill, University of Massachusetts--Amherst
Department of Environmental Conservation
UMASS Cranberry Station Bogside Workshop 6/8/20

Females are polyandrous and, along with males, move throughout the bog habitat; they are active in the forest understory and high in trees surrounding the cranberry bed in late evening. Studies show that, in Massachusetts, counts of *A. vaccinii* in the woods surrounding a bed are often considerably higher than those on the bog.

At the outset, female moths seek enlarging fruit



- Egg in calyx hatches, and larva usually goes to stem end to enter; larva covers entry with bright-white silk

- Larva moves between berries as each is filled with excrement pellets (frass); berry turns red

vine level. However, trap data provide little useful information regarding spray timing in cranberry; there is no consistent relationship between moth activity and oviposition in cranberry. The earliest emerging females appear well before berries have set; significant egg laying does not happen until pinheads have begun to enlarge (approximately 3 mm). To

Management: use plant phenology

1. Calculate percent out-of-bloom
2. Keep eye on bog to confirm: when a sizable fraction of pinheads has enlarged, females will start egglaying

Refer to the Chartbook

For every acre, go out and randomly (eyes closed) collect 10 uprights and record counts of buds, flowers and set berries. Graph points if needed to approx. 50%

$$\% \text{ out-of-bloom} = \frac{\text{total number of pinheads and fruit}}{\text{total number pods, flowers, pinheads, and fruit}} \times 100$$

For Howes -- Apply 1st treatment 7-9 days after 50% out-of-bloom.
For Early Blacks, Ben Lears and Stevens -- Apply 1st treatment 0-7 days after 50% out-of-bloom.

Cranberry fruitworm recommendation Use Altcacor

App 1

- Determine when bog approximates 50% out-of-bloom
- Spray 0-7 days after 50% out-of-bloom
- For Howes: Spray 7-10 days after 50% out-of-bloom

App 2

- Spray again 10 days later

2019 research - big study at 6 sites across 4 cultivars

24 beds sampled for fruitworm eggs every week

Fruitworm may be very low on your bog

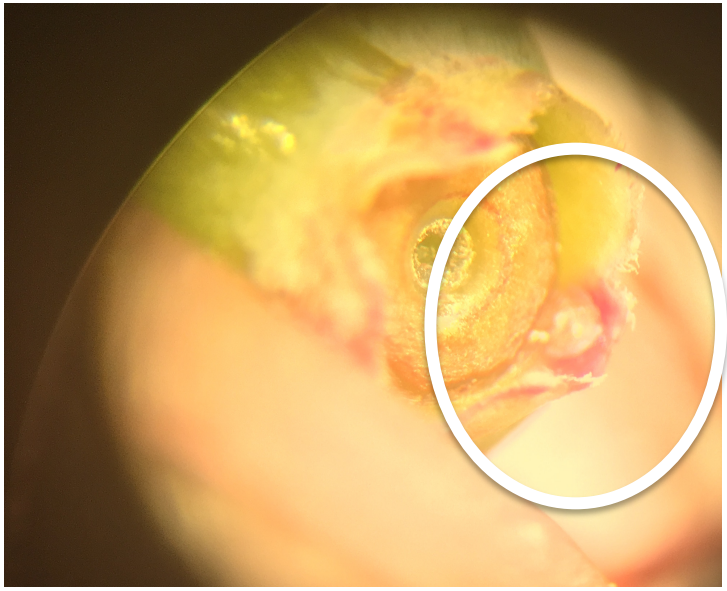
- We found around 2 eggs per 1000 berries

Late season fruitworm may occur

- Observed a significant late-season emergence of moths (starting late July) at all sites

Scale may settle in calyx

Putnam scale



Calyx flap reddens as scale develops

Unknown soft scale